

Con. 4794-05.

(REVISED COURSE)  
( 3 Hours )

PR-5543  
[ Total Marks : 100

N.B. :— Solve any five questions.

1. (a) Draw the layered OSI network architecture. Explain the functions of each layer and show the path of actual and virtual communication between the layers. 10  
(b) Explain character-based framing and bit oriented framing with suitable example. 10
2. (a) Explain various transmission media in detail. 10  
(b) What is packet switching ? Give the flooding algorithm. 10
3. (a) Explain communication service methods and data transmission modes. Explain data as an analogue and digital signals. 10  
(b) Explain bridges, router and switches. What is your observation ? 10
4. (a) Explain, compare and contrast ISDN and Broadband ISDN 10  
(b) Explain the standardized protocol architectures for LANs, which encompasses physical, medium access control and logical link control layers. 10
5. (a) What is sliding window protocol ? Explain n-bit sliding window protocol with suitable example. 10  
(b) Give the Dijkstra shortest path algorithm for finding the least cost path from a specified node S to a specified node T. 10
6. (a) Explain congestion control in TCP Protocol. 10  
(b) Explain IP with reference to IP addressing and IP fragmentation and reassembly. 10
7. Write detailed notes on (any two):— 20
  - (a) MIME
  - (b) ATM traffic management.
  - (c) Telephone system and data communications
  - (d) FDDI.